



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,478	01/06/2004	Minoru Matsuzawa	031362	3528

23850 7590 11/24/2006

ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP
1725 K STREET, NW
SUITE 1000
WASHINGTON, DC 20006

EXAMINER

ROSS, DANA

ART UNIT	PAPER NUMBER
----------	--------------

3722

DATE MAILED: 11/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/751,478

Applicant(s)

MATSUZAWA ET AL.

Examiner

Dana Ross

Art Unit

3722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 25 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is a final rejection, in response to Applicant's amendment dated 25 May 2006.

Applicant is referred to MPEP section 1207.03 (III) which states:

SITUATIONS THAT ARE NOT CONSIDERED AS NEW GROUNDS OF REJECTION

There is no new ground of rejection when the basic thrust of the rejection remains the same such that an appellant has been given a fair opportunity to react to the rejection. See In re Kronig, 539 F.2d 1300, 1302-03, 190 USPQ 425, 426-27 (CCPA 1976).

Where the statutory basis for the rejection remains the same, and the evidence relied upon in support of the rejection remains the same, a change in the discussion of, or rationale in support of, the rejection does not necessarily constitute a new ground of rejection. Id. at 1303, 190 USPQ at 427 (reliance upon fewer references in affirming a rejection under 35 U.S.C. 103 does not constitute a new ground of rejection).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 5,717,482 (Akutsu et al.).

Akutsu et al. discloses a substrate supporting apparatus (1) comprising a rotatable chuck (2) which is provided at its central portion with a hollow (see figs.1-3) and which supports a substrate (3), and a cylindrical nozzle member (10) having a nozzle hole (11) and capable of

Art Unit: 3722

vertically moving in the hollow (see figs.1, 2). The nozzle hole is formed in a central portion of the nozzle member (see figs.1-3), and means (13, 14) for upwardly moving the nozzle member (see figs.1, 2, 5).

Examiner notes that the limitation of the “substrate is held over an upper surface of the chuck in a non-contact state by discharging gas from said nozzle hole” is a statement of intended use and does not result in a structural limitation to the claimed invention. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

In this instance, there is nothing limiting the structure of Akutsu et al. from providing a discharge of gas from the claimed structure. The discharge of gas from a nozzle is well known in the art to provide a non-contact state of a substrate held above an upper surface of a chuck as is disclosed in Applicant’s disclosure (page 1, bottom paragraph), previously cited art US Pat. No. 5,896,877 (Pirker) and US Pat. No. 6,095,582 (Siniaguine et al.).

It is further noted that it would have been obvious to one of ordinary skill in the art at the time the invention was made use reverse the direction of gas flow, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. In this instance, it has been shown that the use of a gas nozzle to discharge gas is well known in the art as discussed above.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akutsu et al. in view of U.S. Patent No. 5,896,877 to Pirker.

Akutsu et al. discloses the claimed invention except for a plurality of pawls provided on a surface of the chuck opposed to the substrate, each of the pawls being projected substantially in a perpendicular direction with respect to the surface, each of the pawls can move into a state in which the pawls abut against an outer periphery of the substrate and support the substrate, and into a state in which the pawls are separated from the outer periphery of the substrate. However, Pirker teaches a substrate supporting apparatus (1) comprising a plurality of pawls (7) provided on a surface of the chuck opposed to the substrate (see fig.1), each of the pawls being projected substantially in a perpendicular direction with respect to the surface (see fig.1), each of the pawls can move into a state in which the pawls abut against an outer periphery of the substrate and support the substrate (see fig.1), and into a state in which the pawls are separated from the outer periphery of the substrate (see column 2, lines 3-5). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Akutsu et al., in view of Pirker, such that it would provide the apparatus of Akutsu et al. with the concept of the aforementioned limitations for the purpose of enhancing the support of the substrate on the chuck.

5. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akutsu et al. in view of U.S. Patent Application Publication No. 2001/0052392 A1 to Nakamura et al.

Akutsu et al. discloses the claimed invention except for having a fork with a pair of finger portions for holding the substrate. Nakamura et al. teaches a substrate supporting apparatus comprising a fork (44) with a pair of finger portions for holding the substrate (see fig.13). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the apparatus of Akutsu et al., as per the teachings of Nakamura et al., such that it would provide the apparatus of Akutsu et al. with the concept of the aforementioned limitation for the purpose of providing a more efficient device for holding the substrate.

Response to Arguments

6. Applicant's arguments filed 25 May 2006 have been fully considered but they are not persuasive.

Examiner has reviewed Applicant's arguments carefully and based on those arguments has determined that the previous rejection of claim 4 under Akutsu et al. in view of Siniaguine et al. was not needed to reject the limitations of claim 4 (which have since been incorporated into claim 1). The limitations of claim 4 provides intended use of the structure of Akutsu et al., and furthermore the intended use supporting the substrate in a non-contact state by discharge of gas obvious and well known to one of ordinary skill in the art.

It is further noted that the limitation that the "substrate is held over an upper surface of the chuck in a non-contact state by discharging gas from the nozzle hole" is contrary to Applicant's structure which has pawls 5 which are in direct contact with the substrate (see

Applicant's figure 2a, for example). It is additionally noted that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dana Ross whose telephone number is 571-272-4480. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica Carter can be reached on 571-272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3722

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Dana Ross
Examiner
Art Unit 3722



dmr